BRUHAT BANGALORE MAHANAGARA PALIKE
YELAHANKA ZONE

Name of work: Modified Estimate for Improvements and Asphalting to roads, drains and Construction of Culverts at Deshabandunagar, Puttanjinappa Layout & Krishna Temple area in ward No 09 in Vidyaranyapura sub Division.

			Estimate Cost Rs.						4329841.00
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specifications MORTH chapter 3. **Page No. 138 / Item No. 19.1 / PWD SR 2014-15**	Cum							
	CC Road								
	Renukamaba Temple area 4th Cross		1	83.00	4.00	0.20	66.40		
			1	26.00	4.00	0.20	20.80		
	Renukamaba Temple area 5th Cross		1	38.00	3.30	0.20	25.08		
	Renukamaba Temple area 5th Cross								
	L/S		1	73.00	1.00	1.00	73.00		
			1	36.00	1.00	1.00	36.00		
	Asphalt Road Drain Desilting								
	5th Main Deshabandunagara		2	363.00	0.45	0.45	147.02		
	4th Main Deshabandunagara		2	157.00	0.45	0.45	63.59		
	Cross Road 2		2	75.00	0.45	0.45	30.38		
	Yerappa Garden Main Road		2	96.00	0.45	0.45	38.88		
	1st Cross Road L/S		2	48.00	0.45	0.45	19.44		
	1st Cross Road R/S		2	27.00	0.45	0.45	10.94		
			2	34.00	0.45	0.45	13.77		
			2	22.00	0.45	0.45	8.91		
	2nd Cross Road L/S		2	48.00	0.45	0.45	19.44		
	5th Main Deshabandunagara			363.00	1.25	0.25	0.00		
	4th Main Deshabandunagara		2	157.00	1.25	0.25	98.13		
	Cross Road 2		2	75.00	1.25	0.25	46.88		
	Yerappa Garden Main Road		2	96.00	1.25	0.25	60.00		
	1st Cross Road L/S		2	48.00	1.25	0.25	30.00		
	1st Cross Road R/S		2	27.00	1.25	0.25	16.88		
			2	34.00	1.25	0.25	21.25		
			2	22.00	1.25	0.25	13.75		
	2nd Cross Road L/S		2	48.00	1.25	0.25	30.00		
	Culverts		2	5.10	1.80	1.20	22.03	TP	
	Total Qty						**912.54**	65.00	**59315.00**
2	Removing B.S Slab of Drain and stacking **Page No. 25 / Item No. 5.32 / PWD SR 2014-15**	Sqm							
	Asphalt Road		2	250.00		1.65	825.00		
			2	60.00		1.65	198.00		
			2	50.00		1.65	165.00		
			2	45.00		1.65	148.50	TP	
							1336.50	50.00	**66825.00**
3	Refixing stone slabs of drains and pointing in C.M (1:3) **Page No. 25 / Item No. 5.33 / PWD SR 2014-15**	Sqm						TP	
			Qty Vide Item No. 2				**1336.50**	65.60	**87674.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
4	KSRB 4-1.3 : Providing and laying in position plain cement concrete of **mix 1:4:8 with OPC cement @ 180 kgs with 40mm** and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregares @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. **No. 12/ Item No. 4.3/ PWD SR 2014-15**	Cum							
	CC Road								
	Renukamaba Temple area 4th Cross		1	83.00	4.00	0.15	49.80		
			1	26.00	4.20	0.15	16.38		
	Renukamaba Temple area 5th Cross		1	38.00	3.40	0.15	19.38		
	Renukamaba Temple 5th Cross CC Drain								
	L/S		1	73.00	1.00	0.15	10.95		
			1	36.00	1.00	0.15	5.40		
	Culvert		2	5.10	1.80	0.15	2.75	TP	
							104.66	4500.00	**470988.00**
5	Providing and laying cement concrete using 20mm and down size granite jelly of **ready mixed concrete (RMC)for R.C.C works** laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, form works and scaffoldings to withstand pumping of concrete, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) Ready mixed Cement concrete M-20 (1:1.5:3) for raft foundation, column footing, main and secondary beams. **Page No. 18 / Item No. 4.48 / PWD SR 2014-15**	Cum							
	CC Road								
	Renukamaba Temple area 4th Cross		1	83.00	4.00	0.125	41.50		
			1	26.00	4.20	0.125	13.65		
	Renukamaba Temple area 5th Cross		1	38.00	3.30	0.125	15.68		
							70.83	5500.00	**389538.00**
6	Vaccum De-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator HOM of machinery Screed Vibratiry, Power Floater, blade and disc etc., with all lead and lift No. **171 / Item No. 22.7 / PWD SR 2014-15**	Sqm							
	Renukamaba Temple area 4th Cross		1	83.00	4.00		332.00		
			1	26.00	4.00		104.00	.	
	Renukamaba Temple area 5th Cross		1	38.00	3.30		125.40		
							561.40	97.20	**54568.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
7	Providing **groove cutting** for width of 5mm to 10mm and depth 80mm-100mm including cost of cutting machine, generator and HOM of machinery including cost of blade coolant etc including cleaning of groove and providing sand and hot bitumne fillars, and filler metal etc., indluding cost of converyance of all materials, labours, lead and lift charges and all other incidental charges as per drawing and as per specification **Concrete Pavement Page No. 172 / Item No. 22.8.1 / PWD SR 2014-15**	Rmt							
	Renukamaba Temple area 4th Cross		4	3.50			14.00		
			9	4.10			36.90		
			3	4.00			12.00	TP	
							62.90	124.20	**7812.00**
8	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5-1.13 **Page No. 23 / Item No. 5.9 / PWD SR 2014-15**	Cum							
	For Culverts		2x2	5.10	0.60	0.90	11.02	TP	
							11.02	4542.48	**50040.00**
9	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for **vertical surface such as walls** at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification NO KBS 4.6.2 **Page No. 15 / Item No. 4.31 / PWD SR**	Sqm							
	Culverts		2	5.10	0.60		6.12		
			2x2	5.10		0.23	4.69		
			2x2	1.80		0.23	1.66		
	For RCC Drain Sidewall		3	73.00		0.60	131.40		
			3	36.00		0.60	64.80		
	For RCC Drain Sidewall		1	73.00	0.60		43.80		
			1	36.00	0.60		21.60		
			2	73.00		0.15	21.90		
			2	36.00		0.15	10.80	TP	
							306.77	292.68	**89785.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
10	KSRB 4.2.2 : Providing and laying in position **reinforced cement concrete of design mix M20 with OPC cement @ 320 kgs, with 20mm and down size graded granite metal**, coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum with superplastisiser @ 3lts confirming to IS 9103-1999 reaffirmed-2008 machine mixed, concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, walls (any thickness) including attached plasters, column, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1,4.6, **Page No. 13 / Item No. 4.11 / PWD SR 2014-15**	Cum							
	CC Drain Bottom		1	72.00	0.90	0.15	9.72		
			1	36.00	0.90	0.15	4.86		
	Side wall		2	73.00	0.15	0.60	13.14		
			2	36.00	0.15	0.60	6.48		
	CC Drain Covering		1	73.00	0.90	0.10	6.57		
			1	36.00	0.90	0.10	3.24		
	Culverts		2	5.10	1.50	0.23	3.52	TP	
							47.53	6065.33	**288279.00**
11	KSRB 4.9.2: Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **TMT Bars FE 500 Page No. 17 / Item No. 4.46.2 / PWD SR 2014-15**	Tonne							
			0.08	47.53			3.80		
							3.80	80000.40	**304187.00**
12	KSRRB 300-47: scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff within a lead of 100 meters including cost of all labour charges complete as per specifications MORTH chapter 3, **No. 143 / Item No. 19.53 / PWD SR 2014-15**	Sqm							
	5th Main Deshabandunagara		2	363.00	1.30		943.80		
	4th Main Deshabandunagara		2	157.00	1.20		376.80		
	Cross Road 2		1	75.00	5.00		375.00		
	Yeppa Garden Main Road		1	96.00	4.00		384.00		
	1st Cross Road L/S		1	48.00	4.10		255.60		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	1st Cross Road R/S		1	27.00	4.10		143.78		
			1	34.00	3.90		181.05		
			1	22.00	3.40		117.15		
	2nd Cross Road L/S		1	48.00	5.00		255.60		
							3032.78		
							3032.78	22.69	**68814.00**
13	KSRRB M400-17: Providing, laying spreading and compacting graded stones aggregate to **wet mix macadam** specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying, in uniform layers with paver in sub base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per MORTH specification NO. 406, **Page No. 154 / Item No. 20.18 / PWD SR 2014-15**	Cum							
	5th Main Deshabandunagara		2	363.00	1.50	0.20	217.80		
	4th Main Deshabandunagara		2	157.00	1.50	0.20	94.20		
	Cross Road 2		1	75.00	5.00	0.20	75.00		
	Yerappa Garden Main Road		1	96.00	4.00	0.20	76.80		
	1st Cross Road L/S		1	48.00	4.10	0.20	39.36		
	1st Cross Road R/S		1	27.00	4.10	0.20	22.14		
			1	34.00	3.90	0.20	26.52		
			1	22.00	3.40	0.20	14.96		
	2nd Cross Road L/S		1	48.00	5.00	0.20	48.00		
							614.78		
							614.78	1438.50	**884361.00**
14	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WBM, WMM including cleaning of road surface and spraying primer at the rate of 0.60 Kg / sqm using mechnical means complete as per specifications. MORTH specification NO. 502, **Page No. 157 / Item No. 21.6 / PWD**	Sqm							
	5th Main Deshabandunagara		1	363.00	4.50		1633.50		
	4th Main Deshabandunagara		1	157.00	4.20		659.40		
	Cross Road 2		1	75.00	5.00		375.00		
	Yerappa Garden Main Road		1	96.00	4.00		384.00		
	1st Cross Road L/S		1	48.00	4.10		220.80		
	1st Cross Road R/S		1	27.00	4.10		124.20		
			1	34.00	3.90		156.40		
			1	22.00	3.40		101.20		
	2nd Cross Road L/S		1	48.00	5.00		220.80		
							3875.30		
							3875.30	31.00	**120134.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
15	KSRRB M500-18: Providing and laying **semi dense bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem roller to achieve the desired compaction as per MORTH specifications clause No. 500.8 complete in all respects as per specifications. **with 100-120 TPH capacityH.M.P with sensor paver Gr-II (25 mm to 30 mm) with 5 % VG-30 Bitumen Page No. 159 / Item No. 21.20.2 / PWD SR 2014-15**	Cum							
	5th Main Deshabandunagara		1	370.00	4.50	0.025	41.63		
	4th Main Deshabandunagara		1	160.00	4.20	0.025	16.80		
	Cross Road 2		1	80.00	5.00	0.025	10.00		
	Yerappa Garden Main Road		1	100.00	4.00	0.025	10.00		
	1st Cross Road L/S		1	48.00	4.10	0.025	4.92		
	1st Cross Road R/S		1	27.00	4.10	0.025	2.77		
			1	34.00	3.90	0.025	3.32		
			1	22.00	3.40	0.025	1.87		
	2nd Cross Road L/S		1	48.00	5.00	0.025	6.00		
							97.30		
	Depression Filling @ 15%						**8.76**		
							106.06	8500.00	**901521.00**
16	Lead for Disposal of Debris shall be payable at carage rates by Mechanical means inlcuding loading and unloading. From 0.00 to 11.90 Km (Page No.123,	Cum						TP	
			Qty. Vide Item No. 1				**912.54**	73.38	**66962.00**
	EIRL								
17	KSRRB M200-24:- dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces no exceeding 0.02 Cum in volume and stock piling at designated locations and disposal of dismantled materials upto a lead of 1000 meters, stacking serviceable and unserviceable materials separately complete as per specifications. ORTH specifications. No. 202, **No. 137 / Item No. 18.47/ PWD SR 2015-16**	Cum							
	CC Road								
	Renukamaba Temple area 4th Cross		1	83.00	4.00	0.20	66.40		
			1	26.00	4.00	0.20	20.80		
	Renukamaba Temple area 5th Cross		1	38.00	3.30	0.20	25.08		
							112.28	800.74	**89907.00**
	PWD SR 2015-16 Basic Rate	762.00							
	Area Weightage @ 8%	60.96							
		822.96							
	Tender Premium @ -2.7%	22.22							
	Total	**800.74**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	KSRB 15.1.3: Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20 mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications cement mortar 1:4. **Page No. 109 / Item No. 15.3 / PWD SR 2015-16**	Sqm							
	Culvert Coping		2x2	5.10		0.90	18.36		
							18.36	96.68	**1775.00**
	PWD SR 2015-16 Basic Rate	92.00							
	Area Weightage @ 8%	7.36							
		99.36							
	Tender Premium @ -2.70%	2.68							
	Total	**96.68**							
	KSRB 4-1.6 : Providing and laying in position plain cement concrete of **mix 1:2:4 with cement @ 240 kgs with 20mm** and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications, specification. No. KBS 4.1,4.2. **No. 12/ Item No. 4.6 / PWD SR 2015-16**	Cum							
	Culvert Coping		2	5.10	1.50	0.10	1.53		
	Ramp		2x2	5.10	0.90	0.10	1.84		
							3.37	5342.47	**17983.00**
	PWD SR 2015-16 Basic Rate	5084.00							
	Area Weightage @ 8%	406.72							
		5490.72							
	Tender Premium @ -2.70%	148.25							
	Total	**5342.47**							
	KSRRB 500-7: Providing and applying **tack coa**t using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding clearing of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH chapter 5, **No. 160 / Item No. 21.7/ PWD SR 2015-16**	Sqm							
	5th Main Road Balance		1	95.00	4.00		380.00		
	5th Main Road Sides		2	270.00	1.50		810.00		
							1190.00	. 11.56	**13755.00**
	Basic Rate	11.00							
	Area Weightage @ 8%	0.88							
		11.88							
	Tender Premium @ -2.70%	0.32							
	Total	**11.56**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
18	KSRRB 500-11: Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, 50 / 75mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack cost with lead upto 1km including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH chapter 5, **using 40/60 TPH capacity H.M.P with Mechanical paver gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen, Page No. 161 / Item No. 21.11.6 / PWD SR 2015-16**	Cum							
	5th Main Road Balance		1	95.00	4.00	0.05	19.00		
	5th Main Road Sides		2	270.00	1.50	0.05	40.50		
							59.50	4968.37	**295618.00**
	Basic Rate	4728.00							
	Area Weightage @ 8%	378.24							
		5106.24							
	Tender Premium @ -2.70%	137.87							
	Total	**4968.37**							
								Total	**4329841.00**

Rupees **Forty Three Lakh(s) Twenty Nine Thousand Eight Hundred Forty One Only**

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2014-15, 2015-16 +/- Tender Premium.
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer 14/8/16.
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

"Modified Estimate Sanctioned"
Chief Engineer
Yelahanka Zone
Bruhath Bangalore Mahanagara
Palike
Bangalore 92